

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: KOLELEMOOK LAKE	Lake Area (ha):	40.02
Town: SPRINGFIELD	Maximum depth (m):	6.7
County: Sullivan	Mean depth (m):	4.1
River Basin: Connecticut	Volume (m ³):	1623000
Latitude: 43°29'21" N	Relative depth:	0.9
Longitude: 72°02'31" W	Shore configuration:	1.29
Elevation (ft): 1387	Areal water load (m/yr):	3.64
Shore length (m): 2900	Flushing rate (yr ⁻¹):	0.90
Watershed area (ha): 246.9	P retention coeff.:	0.71
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

14 January 1997

25 June 1996

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 70%	DINOBRYON 40%
	#2		MELOSIRA 30%
	#3		ANABAENA 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			2.20
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	KERATELLA 45%
	#2		VORTICELLA 18%
	#3		NAUPLIUS LARVA 12%
ROTIFERS/LITER		<1	89
MICROCRUSTACEA/LITER		11	38
ZOOPLANKTON ABUNDANCE (#/L)		11	156
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			3.8
BOTTOM DISSOLVED OXYGEN (mg/L)		10.1	5.6
BACTERIA (E. coli, #/100 ml)	#1		< 10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 3.6
Hypolimnion volume (m³): 238100
Anoxic volume (m³): None

CHEMICAL:

Lake: KOLELEMOOK LAKE

Town: SPRINGFIELD

	14 January 1997		25 June 1996		
DEPTH (m)	2.0	4.0	2.0	4.0	5.5
pH (units)	5.8	5.9	6.6	6.5	6.2
A.N.C. (Alkalinity)	4.9	5.3	3.8	3.8	3.8
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.24	0.37			
TOTAL PHOSPHORUS	0.014	0.011	0.012	0.012	0.013
CONDUCTIVITY (μ mhos/cm)	65.2	70.3	73.3	72.9	73.4
APPARENT COLOR (cpu)	6	13	5	7	9
MAGNESIUM			0.56		
CALCIUM			3.1		
SODIUM			9.7		
POTASSIUM			0.48		
CHLORIDE	11	12	14		14
SULFATE	6	6	5		6
TN : TP	17	34			
CALCITE SATURATION INDEX			3.6		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1996

D.O. S.D. PLANT CHL TOTAL CLASS

0	2	0	0	2	Oligo.
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COMMENTS:

1. Kolelemook Lake was previously surveyed and classified in 1980. There was no change in the trophic classification although water clarity was reduced by 5 feet in 1996.
2. This lake participates in VLAP. Monthly summer data since 1987 suggest relatively stable to slightly improving water quality.
3. Slightly elevated sodium, chloride and conductivity values suggest some road-salt runoff into the pond.
4. Good boat launch was located at the northwestern end of the pond adjacent to the town beach. Parking was available.

Kolelemook Lake

Springfield

launch

N

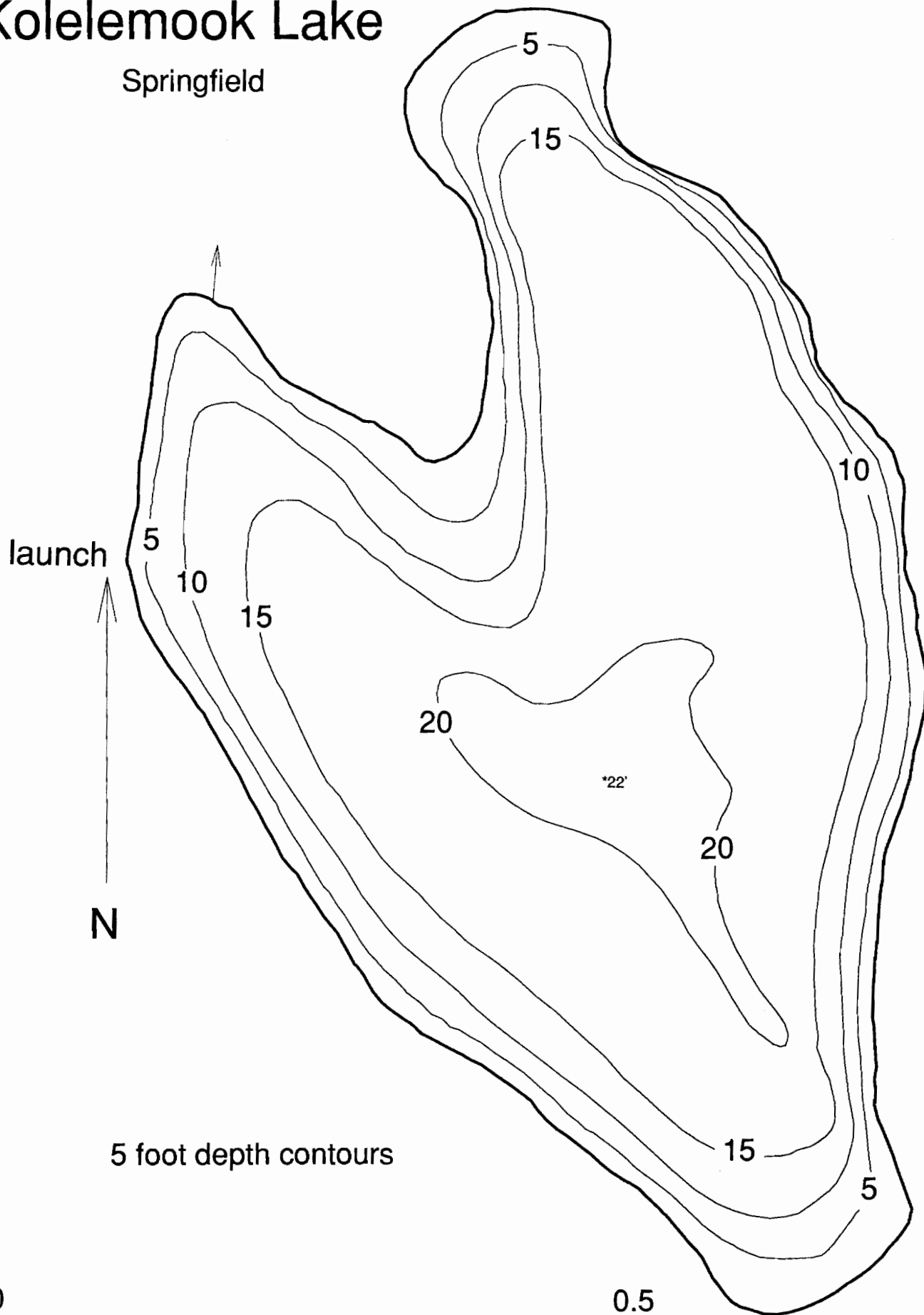
5 foot depth contours

0

0.5

Km

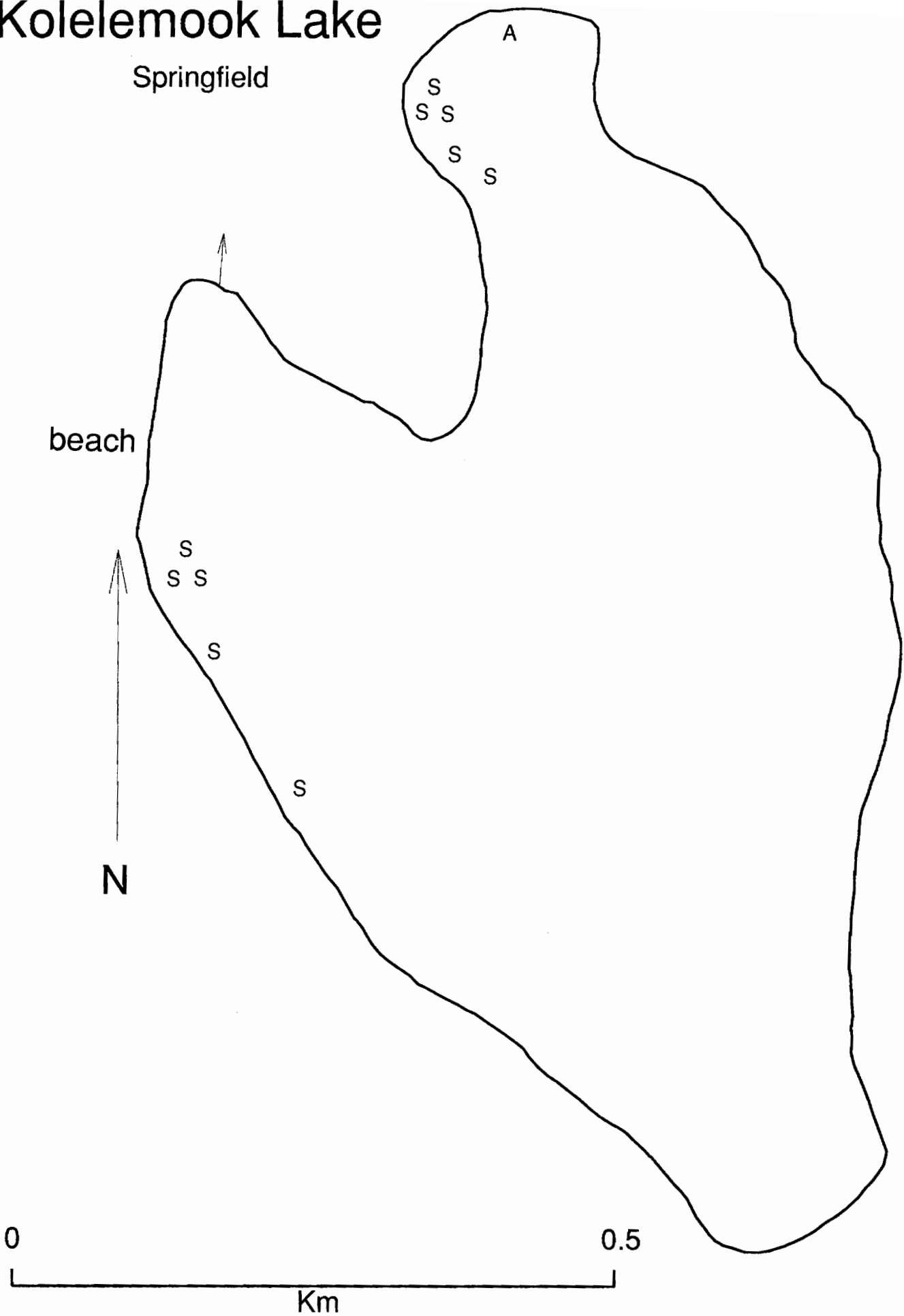
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Kolelemook Lake

Springfield



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